

**OBTAINING AND MAINTAINING TTR SYNCHRONIZATION DURING  
DSL TRANSCEIVER CHANNEL DISCOVERY PHASE IN PRESENCE OF  
TCM-ISDN NOISE**

**ABSTRACT OF THE DISCLOSURE**

[0041] Techniques are disclosed for obtaining and maintaining synchronization of the TTR clock during a Channel Discovery Phase of DSL transceiver initialization for a DSL service operating in a TCM-ISDN crosstalk environment. The customer premises DSL transceiver achieves synchronization of its TTR clock throughout the Channel Discovery Phase of the DSL initialization procedure using a TTR indication signal transmitted by the central office transceiver. In addition to enabling basic communications, keeping TTR synchronization improves the accuracy of quiet noise measurement and the reliability of message exchanges, even on very long and noisy loops.